

**Prov. Title: There's no such thing as simple – why we need to think about complexity.**

Last year, just before the first lockdown when I was still able to work in a room with my class of second year undergraduate occupational therapy students, I banned the words 'just' and 'simple' from our class discussions. The students were working towards one of their assignments, for which they were asked to critically consider the occupational therapy practices used with a person they encountered during their placement experiences. They were encouraged to explain how and why they facilitated, or would facilitate, the person to meet occupationally relevant goals.

I realised that many in the class defaulted to describing their work using the soon-to-be banned words; *"but it was just kitchen practice"*, *"it was simple stuff like transfers"*. When I would follow up by asking why they thought these practices were *just* so *simple*, the answers didn't come as quickly. It was only when we started to deconstruct the practices that many students realised the extent of the possible considerations they could make when thinking about how to 'do therapy'. '*Just kitchen practice*' became discussed in terms of cognitive rehabilitation, context-specific task training, and neuro-plasticity theory. '*It was simple stuff like transfers*' became discussions about the interplay between biomechanics, physical performance capacities and exercise tolerance, environments, equipment and ergonomics, learning theories, motivation, identity and the meaning of home.

These experiences point to a continuing phenomenon in our profession; we sometimes have difficulty explaining how and why we practice in the many ways we do (Wilding and Whiteford 2007). This is not because of any lack of theoretical consistency at the heart of our profession. The idea that we can improve health and wellbeing either by using techniques that (re)enable occupation or by using occupations themselves are well established (Stewart et al. 2016). These are perhaps becoming even more widely recognised as many in our society struggle with disruption caused by the pandemic. Rather the challenge originates because our practices are framed by perspectives that differ from many scientifically informed disciplines. In these, the principles for clinical reasoning and scientific study remain strongly rooted in reductionism (that the best way of understanding is to analyse and describe phenomena in terms of their simplest or most fundamental constituents). Many of our practices require a holistic approach to reasoning (considering the person and their health and wellbeing as a whole, before and while we evaluate and examine their parts).

However, there are issues with using the term holism, not because it is inaccurate, but because it is too easily conflated with the most unhelpful elements of complementary and alternative healthcare, that imply that magical or mystically unknowable processes can be used to achieve health and wellbeing where 'mainstream' medical practice fails. This way of using the term holism detracts from the degree of skill needed to practice in this way. We use our ability to analyse (break down) *and* synthesise (put together) to better understand the interacting elements that comprise a person and their occupations and make decisions about how to change these to improve health and wellbeing.

To 'treat' the whole person requires some significant cognitive abilities. The first of these is one of perspective, and not a huge leap for occupational therapists, as it recognises that people, their occupations, and their health and wellbeing are not objective qualities. They emerge from, but are greater than, the individual parts that sustain them, for example physical capacity, cognitive and psychological processes, physical and socio-cultural environments. Acknowledging this perspective means therapists must have the cognitive ability to access, analyse and interpret substantial amounts of information. Recognising the potential for elements within multiple different areas to contribute to a person's occupations means we also have to deal with more information. This might

range from relatively well understood topics such as human movement or performance, to elements that are themselves the product of complex socio-cultural contexts (identity, preference, politics, economics, community, family) that do not display the stability or equilibrium that we associate with the natural or physical world. This increase in potentially relevant information, magnified by the uncertainty introduced when some of it is less understood and likely to change in difficult to predict ways, requires therapists to be capable of both highly analytical and synthetic thinking.

The examination of practice by Pentland et al (2018) noted that many of these ideas were identified by the high proportion of therapists (88.8%) who identified their practice as being 'complex'. Recent discourse into complexity in healthcare, such as Greenhalgh and Papoutsis's (2018) editorial, criticises a lack of genuine theoretical and empirical engagement with the concept of complexity in health research. Of particular note in their paper was the assertion that a failure to engage with underlying ideas limits the potential for engaging with complexity as a way of improving health. The consequence of this is that *"many... remain wedded to the intervention-focused approach to complexity as originally mooted by the MRC. Unfortunately, 'complexity research' has come to be equated in some circles with a highly standardised sequence of developing a structured, multi-component intervention, testing it in a randomised controlled trial and following a somewhat formulaic and prescriptive approach to implementation"* (Greenhalgh and Papoutsis 2018, p.5). This is despite an awareness that there may be value in complementing the reductive approach to scientific enquiry with newer, less well established, approaches to understanding complex issues.

Here is the opportunity and the challenge for occupational therapy.

New discussions about complexity provide opportunities to develop and use new approaches to conceptualising and studying health and wellbeing, and how we can influence these by our therapy practices. If we accept the idea that occupation and wellbeing are complex phenomena that can be understood by considering the interactions of sometimes very different aspects of the physical and socio-cultural realms, developments in the wider debate means that how we think about occupation, therapy and health might become more accepted. Difficulty explaining what we do might be replaced with language that better reflects the skill and nuance involved in our practice. Hesitancy in explaining *precisely* a course of action, might be better understood by those we work with, alongside and for, as a product of the uncertainty that comes from attempting to grapple with issues that have complex properties.

However, we must engage critically with the ideas of complexity if we want to take advantage of the opportunities that these might provide in developing our understanding of occupation and occupational therapy. This challenge is substantial. There are many complexity theories and many perspectives on their characteristics that can make accessing and applying these ideas difficult. There is a need for further theoretical and empirical work on concepts associated with complexity to make them accessible and useable for those involved in the study of occupation and occupational therapy.

In *Occupational Therapy and Complexity: Describing and Defining Practice* (Pentland et al 2018), we attempted to consider if and how contemporary perspectives on practice aligned with the conceptualisation of complexity used by the Medical Research Council (Craig et al. 2008; Moore et al. 2015). However, beyond this exercise, we identified several issues that could provide points of access for those with an interest in considering the complexity of occupation and occupational therapy. These remain issues because there are no clear answers, and each perspective comes with both benefits and challenges. We need to explore these so that we can make the best use of the opportunities using complexity theories could provide for our profession.

Is occupational therapy complex by its very nature, integrating multiple practices, requiring flexibility, resulting in multiple outcomes that can be hard to measure? Or is it more useful to think about therapy as intervening in complex contexts to change their dynamics in pursuit of occupational and therefore health outcomes? Can it be both, so that we continue to develop as highly skilled profession with a unique and specialist contribution to make in society while at the same time adding weight to the claim that we can make small changes that have big impacts? By asking these questions we can start to engage with emerging methodologies that could help to advance our understating of occupation and occupational therapy.

This will be demanding and will need members of our profession to venture into new areas. If we engage with developments in mathematical modelling, can we adapt techniques designed to understand customer churn in the personal banking market and apply them to investigate the best way of enabling children to play? Can we use climate modelling techniques to tell us how to use occupation to optimise brain injury rehabilitation? Simultaneously, it will be important to be critical of the advances that might come with greater focus on complexity. Continued engagement with philosophy will be needed so that those involved in research using complexity theories are aware that their choices of what to include in a study are not value free, as they are also choices about what not to include (Broer et al. 2017). Likewise, while this necessarily limits the 'certainty' of the conclusions drawn, it does not have to lead to 'vague relativism' (Cilliers 2005).

Being aware of complexity theories and finding ways to use these could help occupation to be better understood and occupational therapy to be recognised more widely as a highly skilled profession. If we are not able to do this now, we might lose the opportunity, and worse, see others begin to dominate the idea that our profession has claimed since its inception, that *doing* occupations can lead to health and wellbeing, and that while our actions can be simple, their consequences might be complex.

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